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DOCKET NO.: NIHA-0194/E-307-2002/0-US-03 PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

George Janini, et al.

Application No.: 10/529,967

Filing Date: September 15, 2005

CONTIGUOUS CAPILLA ANALYTICAL DEVICE Confirmation No.: 9010

Group Art Unit: Not Yet Assigned

Examiner: Not Yet Assigned

CONTIGUOUS CAPILLARY ELECTROSPRAY SOURCES AND

DATE OF DEPOSIT:

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SERVICE AS FIRST CLASS MAIL, POSTAGE PREPAID, ON THE DATE INDICATED ABOVE AND IS ADDRESSED TO THE UNITED STATES PATENT AND TRADEMARK OFFICE, P.O. BOX 1450, ALEXANDRIA,

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Dear Sir:

INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 CFR § 1.56 and in accordance with 37 CFR §§ 1.97-1.98, information relating to the above-identified application is hereby disclosed. Inclusion of information in this statement is not to be construed as an admission that this information is material as that term is defined in 37 CFR § 1.56(b).

In accordance with § 1.97(b), since this Information Disclosure Statement is being filed either within three months of the filing date of the above-identified

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	application, within three months of the date of entry into the national stage of
	the above identified application as set forth in § 1.491, before the mailing date
	of a first Office Action on the merits of the above-identified application, or
	before the mailing date of a first Office Action after the filing of request for
	continued examination under § 1.114, no additional fee is required.
	In accordance with § 1.97(c), this Information Disclosure Statement is being
	filed after the period set forth in § 1.97(b) above but before the mailing date of
	either a Final Action under § 1.116 or a Notice of Allowance under § 1.311, or
	before an action that otherwise closes prosecution in the application, therefore:
	Certification in Accordance with § 1.97(e) is attached; or
	The fee of $$180.00$ as set forth in $$1.17(p)$ is attached.
	In accordance with § 1.97(d), this Information Disclosure Statement is being
	filed after the mailing date of either a Final Action under § 1.113 or a Notice
	of Allowance under § 1.311 but before, or simultaneously with, the payment
	of the Issue Fee, therefore included are: Certification in Accordance with §
	1.97(e); and the submission fee of <u>\$180.00</u> as set forth in § 1.17(p).
\boxtimes	Copies of reference numbers 1 – 69 and 151 - 171 listed on the attached Form
	PTO-1449 are enclosed herewith.
\boxtimes	Copies of reference numbers 70 - 150 on the attached Form PTO 1449 are not
	required to be submitted pursuant to 37 CFR § 1.98(a)(2)(i).
	Copies of references - are not being submitted because
	they were previously cited by or submitted to the U.S. Patent and
	Trademark Office in patent application number , filed for

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which a claim for priority under 35 U.S.C. § 120 has been made in the instant application.

The relevance of those listed references which are not in the English language is as follows:

There are no listed references which are not in the English language.

Please charge any deficiency or credit any overpayment to Deposit Account No. 23-3050. This form is submitted in duplicate.

Date: January 16,2006

Jeffrey H. Rosedale

WOODCOCK WASHBURN LLP One Liberty Place - 46th Floor Philadelphia, PA 19103

Telephone: (215) 568-3100 `` Facsimile: (215) 568-3439



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THADE			Docket No		
		1449 Modified			Application No.
rorm i	10-	1449 Modified	NIHA-019		10/529,967
Tiet of	Datant	and Publications	E-307-200	2/0-05-03	
			1		
		y Applicant	Applicant		
(Use sev	erai si	heets if necessary)	George Jan	ımı, et al:	
U.S. De	partm	ent of Commerce	Filing Date		Group
Patent	and T	rademark Office	Filing Date		Group Not Yet Assigned
			September	15, 2005	Not 1 et Assigned
	•		Confirmati	on No.	
			Not Yet As	ssigned	
O	THER	R DOCUMENTS (Include	ding Author	Title, Date,	Pertinent Pages, Etc.)
•]	1				n-capillary zone electrophoresis-
/A.S./	-	mass spectrometry appli	ed to peptide	analysis," J.	Am. Soc. Mass Spectrom., 1999,
/A.S./		10, 1271-1278	F - F - F	• •	•
	2	Cao. P., et al., "Analysis	s of peptides.	proteins, pro	tein digests, and whole human
,	_	blood by capillary electr	rophoresis/el	ectrospray ior	nization-mass spectrometry using
3000000	ŀ	an in-capillary electrode	sheathless interface," J. Am. Soc. Mass Spectrom., 1998, 9,		
000000]	1081-1088		,	•
	3		eathless capillary electrophoresis/electrospray mass		
200000		spectrometry using a car	rbon-coated 1	fused-silica ca	apillary," Anal. Chem., 2000, 72,
000000		626-630			
	4	Chaudhary, T., "Nanosr	oray on the th	ermo finniga	n LCQ™; Peptide and Protein
000		Analysis," Thermo Finn	igan LC/MS	Application I	Report, 1999, 8 pages
	5	"Choosing the right tip:	Step 2; I am	looking for F	PicoTips for online nanospray,
XX		microspray and LC-MS			•
		http://www.newobjectiv			2.html, 2002 , 2 pages
	6	"Choosing the right tip:	Step 2; I am	looking for I	PicoTips for offline, static
		nanospray" New Object		•	- ·
		http://www.newobjectiv		ical/right tip?	3.html, 2002 , 2 pages
	7	"Choosing the right tip:			
0000000		http://www.newobjectiv			
	8	"Continuous-flow nano			
8000000		http://www.newobjectiv	e.com/produ	cts/silicatips.	html, 2002, 2 pages
	9	Ding, J., et al., "Recent	development	s in interface	s and applications," Analytical
W		Chem. News & Feature	s, 1999 , 71, 3	378A - 385A	
	10	Ericsson, L., et al., "Inte	erfacing capi	llary electrop	horesis and mass spectrometry,"
/A.S./		Summary of the ABRF S	Symposium a	t the 1996 Pr	otein Society Meeting, 1996,
/Aloi/					1996/CEMS.html, 6 pages
EXAMINER	·	/Andrew Smyth/ (07/24/200		DATE CO	
L		AMONO CHIYMI (CITE-1/200	, , , , , , , , , , , , , , , , , , , ,		

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Form I	PTO-	-1449 Modified	Docket No NIHA-019 E-307-200	4/	Application No. 10/529,967
C	ited b	and Publications y Applicant heets if necessary)	Applicant George Jar		
		nent of Commerce rademark Office	Filing Date September		Group Not Yet Assigned
			Confirmati Not Yet A	-	
O 7	ГНЕР	R DOCUMENTS (Includ	ing Author	, Title, Date, I	Pertinent Pages, Etc.)
/A.S./	11	"ESI Resources; Bibliog	raphy," New	Objective, Inc	·· ,
•		http://www.newobjective			
D000000	12	separated by capillary ele	ectrophoresi	s," Anal. Chen	ometric analysis of peptides a., 1994 , <i>66</i> , 3696-3701
0000000	13	Fathollahi, B., "The 13 th	Annual Free	derick Confere	nce on Capillary Electrophoresis,"
0500000		National Cancer Institute			Ostahan 21 22 2002 2
B0000000		pages	ents/ce_con	rerence/course	<u>a.asp</u> , October 21-23, 2002 , 3
300	14	Figeys, D., et al., "Protei	n indentific	ation by capilla	ary zone
gaponodis		electrophoresis/mecroele	ectrospray io	nization-tande	m mass spectrometry at the
890008		subfemtomole level," An			
ровогоромогогорой	15	electrophoresis-microele 1996 , <i>14</i> , 1579-1583	ctrospray-ta	ndem mass sp	nse microextraction-capillary zone ectrometry," <i>Nature Biotechnol.</i> ,
)))	16				s," The Polymer Handbook, 3 rd
	17	Ed., Wiley Interscience,			se separation/mass spectrometry
100 October 100 Oc	1	techniques. An update of 253	n recent dev	elopments," J.	Mass Spectrum., 2002, 37, 241-
0000000	18	Guzman, N.A., et al., "N	lew direction	ns for concentr	ration sensitivity enhancement in
5000	10	CE and microchip technology	ology," LC/	on in conillar	electrophoresis with an etched
	19	joint," Anal. Chem., 199	7 , <i>69</i> , 264-2	67	
Y	20	Huber, C.G., et al., "Con	nparison of	CE-ESI-MS ar	nd HPLC-ESI-MS for the analysis
l l l 					ational Symposium on High
/A.S./					d Techniques, 1999, 2 pages
		nπp://web.archive.org/w pages	CU/ 2000 I 0 I	+143320/1111 <u>0./</u>	//info.uibk.ac.at/c/c7/c725/, 2
EXAMINER	I	/Andrew Smyth/ (07/24/20	(80	DATE CON	SIDERED

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		1449 Modified	Docket No. NIHA-0194 E-307-2002	1/	Application No. 10/529,967	
Ci	ted by	and Publications Applicant neets if necessary)	Applicant George Jan	ini, et al.		
		ent of Commerce rademark Office	Filing Date September		Group Not Yet Assigned	
			Confirmati Not Yet As			
го	HER	DOCUMENTS (Includ	ling Author,	Title, Date,	Pertinent Pages, Etc.)	
/A.S./	21	chromatography-electrospray	ionization mas	s spectrometry a Liquid chromato	olytes for high-performance liquid and capillary electrophoresis-electrospray graphy," <i>J. Chromatogr. A</i> , 1999 , <i>849(1)</i> , d=Retrieve&db=PubMed&list_uids, 1	
000000000000000000000000000000000000000	22	Huber, C.G., et al., "Evaluation chromatography-electrosprayionization mass spectrometry 849(1), 175-189	of proteins. II.	s spectrometry a Capillary eletro	olytes for high-performance liquid and capillary electrophoresis-electrospray phoresis," J. Chromatogr. A, 1999, we&db=PubMed&list_uids, 2 pages	
000000000000000000000000000000000000000	23	Kelly, J.F., et al., "Capillary a flow rates: practical considera	zone electropho ations and anal	oresis-electrospra ytical performan	ay mass spectrometry at submicroliter ce," Anal. Chem., 1997, 69, 51-60	
30000000000000000000000000000000000000	24	Kertesz, V., et al., "Mini Mass Spectrometry, 200	imizing anal	yte electrolysi	s in an electrospray emitter," J.	
po-paraconomic (25	Lazar, J.M., et al., "Micro	ochip ESI so	urce for capil	lary electrophoresis time-of-flight s/casd/obms/asmsabs99/lazar.pdf,	
950000	26	LCQ Deca XP Plus, "Impr ThermoFinnigan, 2002, 4		cs for greater s	ensitivity and precision,"	
27 "LCQTMDeca XP plus," Thermo Finnigan, http://www.thermo.com/eThermo/CDA/Products/F and http://www.thermo.com/eThomo/CDA/Products/P 2001, 3 pages				/Products/Prod		
000000000000000000000000000000000000000	28	"LCQ TM Nanospray Ion Source," <i>ThermoFinnigan</i> , http://www.thermo.com/eThermo/CDA/Products/Product_Detail/1,1075,15857-113-X,00.html, 2001, 1 page				
V	29	"LCQ Ion Trap Animation http://www.thermo.com/e" 113,00.html, 2001, 2 page	Thermo/CDA	" Thermo Finn Technology/T	igan, echnology_Detail/1,1213,113-	
/A.S./	30	Lee, E.D., et al., "Liquid i	unction coupl	ing for capillar	y zone electrophoresis/ion spray mass ectrometry, 1989, 18, 844-850	
EXAMINER		/Andrew Smyth/ (07/	24/2008)	DATE CON		

Sheet 4 of 15

		1449 Modified	Docket No. NIHA-0194/ E-307-2002/0-US-03	Application No. 10/529,967	
C	ited b	and Publications y Applicant heets if necessary)	Applicant George Janini, et al.		
		ent of Commerce rademark Office	Filing Date September 15, 2005	Group Not Yet Assigned	
			Confirmation No. Not Yet Assigned		
O	ГНЕБ	R DOCUMENTS (Includ	ling Author, Title, Date,	Pertinent Pages, Etc.)	
/A.S./	31	interface for the on-line	coupling of capillary zone	ectrodeless microelectrospray e electrophoresis to mass ectrometry, 1997 , <i>11</i> , 981-986	
200000	32	Maziarz, E.P., et al., "Ponanospray emitters," J.	olyaniline: a conductive po Am. Soc. Mass Spectrom.,	olymer coating for durable	
222380000000000000000000000000000000000	33	"Microspray flow rates," http://www.newobjectiv	e.com/products/tapertips.	htlm, 2002, 1 page	
***************************************	34	analysis of biological m	ixtures," <i>Anal. And Bioan</i>	rometry and its application to the sal. Chem., 2002, 373, 466-480	
000000000000000000000000000000000000000	35	capillary electrophoresis 2002 , <i>74</i> , 3772-3776	s/electrospray ionization-r	e in human red blood cells using mass spectrometry," Anal. Chem.,	
000000000000000000000000000000000000000	36	Moini, M., et al., "Design electrophoresis to mass Chem., 2001, 73, 3497-3	spectrometry interface us	niversal sheathless capillary ing a split-flow technique," Anal.	
D. D	37	Moseley, M.A., et al., "Chromatography with co	Coupling of capillary zone paxial continuous-flow fas	e electrophoresis and apillary liquid st atom bombardment tandem sector 97-209	
000000000000000000000000000000000000000	38	mass spectrometry," <i>J. Chromatog.</i> , 1989 , <i>480</i> , 197-209 NanoSpray Ion Source and NanoFlow Solution Kit, "Hardware and consumables for low-volume analyses," <i>ThermoFinnigan</i> , http://www.thermo.com/eThermo/CMA/Images/Product/productImg_16684.jpg , 2001 , 5 pages			
V	39 "New LCQ TM DECA XP Ion Trap LC/MSn," <i>Thermo Finnigan</i> , 2001, <a 1="" a="" href="http://www.thermo.com/eThermo/CDA/News/News_Detail/0,1247,10555-113,00.html," page<="">				
/A.S./	/A.S./ Nilsson, S., "Avdelningen för analytisk kemi," http://216.239.53.100/search?q=cache:iL5dwY6FoewC:www.analytisk.kemi.uuersonal , 2001, 3 pages				
EXAMINER	1	/Andrew Smyth/ (07/	(24/2008) DATE CO	NSIDERED	

Sheet 5 of 15

Form PTO-1449 Modified			Docket No. NIHA-0194/ E-307-2002/0-US-03	Application No. 10/529,967		
C	Cited b	and Publications y Applicant heets if necessary)	Applicant George Janini, et al.			
		nent of Commerce Trademark Office	Filing Date September 15, 2005	Group Not Yet Assigned		
			Confirmation No. Not Yet Assigned			
O	THEF	R DOCUMENTS (Includ	ding Author, Title, Date,	Pertinent Pages, Etc.)		
/A.S./	41		n-line mass spectrometric Chem., 1987, 59, 1230-123	detection for capillary zone		
8	42	"Online: Pricofrit TM tips self-pack: Perfect for proteomics," http://www.newobjective.com/products/picofrit_selfpack.html , 2002, 1 page				
	43		'New sheathless interface			
000			ospray mass spectrometry evaluated by the analysis of fatty			
			s," J. Chromatogr. A, 199 9			
98	44	_	nospray," New Objective, .	· ·		
				offl_index.html, 2002, 2 pages		
100000000	45		-	ica fibers or tubes," Polymicro		
000	46		://www.polymicro.com/pi	g a continuous vacuum deposition		
2222200	40	interface," Anal. Chem.,		g a continuous vacuum deposition		
8	47			hromatography-electrospray		
800		ionizsation mass spectro	metry of single- and doub	le-stranded nucleic acids using		
5900000			umns," Anal. Chem., 2000			
0000			n.gov/entrez/query.fcgi?cn	nd=Retrieve&db=PubMed&list_ui		
	40	ds, 2 pages		11 r		
19900000	48		variation and function," Pu	ublication List, pub.html, May 15, 2002, 3 pages		
XX	49		M columns," New Objectiv			
***************************************			e.com/products/picofrit in			
W	50			ore columns," New Objective, Inc.,		
/A.S./			e.com/products/picfrit_pa			
EXAMINER		/Andrew Smyth/ (07/24/20	(08) DATE CON	ISIDERED		

Sheet 6 of 15

Form PTO-1449 Modified List of Patent and Publications Cited by Applicant (Use several sheets if necessary)			Docket No. NIHA-0194/ E-307-2002/0-US-03	Application No. 10/529,967
			Applicant George Janini, et al.	
		ent of Commerce rademark Office	Filing Date September 15, 2005	Group Not Yet Assigned
			Confirmation No. Not Yet Assigned	
Ol	HER	R DOCUMENTS (Inclu	iding Author, Title, Date	, Pertinent Pages, Etc.)
/A.S./	51	Ross, G.A., "Capillary	electrophoresis-mass spec	trometry: practical implementation
71 102		and applications," Agil	ent Technologies, 2001, 6	pages
8888888888	52	Samskok, J., et al., "Op to a mass spectrometer 919-924	via a sheathless interface,	ctrophoresis conditions for coupling "J. of Mass Spectrum., 2000, 35,
1920	53	and development," Gen	netic Engineering News, 20	evices help scientists with research 003, 23(7), pages 1 and 62
	54	Agilent Technologies,	2000 , 6 pages	LC-MS for peptide samples,"
30000000000000000000000000000000000000	55	capillary electrophores Chem., 1997, 69, 2154	sis/microelectrospray ioniza -2158	odialysis junction interface for ation mass spectrometry," Anal.
000000000000000000000000000000000000000	56	Shen, Y., et al., "High with mass spectrometr Analytical Chem., 200"	y using nanoelectrospray i	d chromatography coupled on-line onization for proteomics,"
	57	Smith, A.D., et al., "Confidence of the control of	ontrol of electrochemical relectrospray emitter electrouffers," <i>Anal. Chem.</i> , 2001	ode under CE/ESI-MS through the , 73, 240-246
V	58	Smith, R.D., et al., "In electrophoresis-mass s	nproved electrospray ionizapectrometry," Anal. Chem	ation interface for capillary zone , 1988, 60, 1948-1952
	59	Smith, R.D., et al., "Ca electrospray ionization	apillary zone electrophores interface," Anal. Chem., 1	is-mass spectrometry using an 1988, 60, 436-441
/A.S./	60	Soo, E.C., et al., "The	application of CE-ESI-MS	to metabolomics: probing the
			minic acid and its analogu ogical Sciences, http://ibs-	es on campylobacter jejui flagellin,"
-				tml, November 24, 2004 , 1-8
EXAMINER	ı	/Andrew Smyth/ (07/24	DATE CO	NSIDERED

Sheet 7 of 15

		1449 Modified	Docket No. NIHA-0194 E-307-2002	! /	Application No. 10/529,967
C	ited by	and Publications y Applicant heets if necessary)	Applicant George Jan	ini, et al.	
		ent of Commerce rademark Office	Filing Date September		Group Not Yet Assigned
			Confirmation Not Yet As		
O	THER	R DOCUMENTS (Include			
/A.S./	61	"Thermo Finnigan and new objective team up to simplify nanospray for proteomics, http://www.thermo.com/eThermo/CDA/News/News Detail/0,1247,10649-113,00.html, June 20, 2001 , 2 pages			
S CONTRACTOR CONTRACTO	62	Tong, W., et al., "Identification of proteins in complexes by solid-phase microextraction/multistep elution/capillary electrophoresis/tandem mass spectrometry," <i>Anal. Chem.</i> , 1999 , <i>71</i> , 2270-2278			
	63	in complex mixtures," C S99	Chromatograp	phia Supplem	
000000000000000000000000000000000000000	64	spectrometry using 10 m Cytochrome C," J. Chro	nu m Id capill om. A, 1994, o	aries – analy 559, 217-222	resis electrospray ionization mass ses of Tryptic Digests of (Abstract, 1 page)
000000000000000000000000000000000000000	65	Wang, XQ., et al., "Po California Institute of To Electro, MEMS'99, 1	lymer-based echnology, Po 999, 6 pages	electrospray of asadena, CA,	chips for mass spectrometry," 12 th IEEE Int. Conf. on Micro
- Control of the Cont	66	Wei, W., et al., "On-line electrophoresis with an	e concentration etched porous	s joint," <i>Ana</i>	and peptides in capillary zone <i>l. Chem.</i> , 2002 , <i>74</i> , 3899-3905
	67	"What does NCBI do?," http://www.ncbi.nih.gov	v, News avail	able online M	
V	68	"What is electrospray?,' http://www.newobjective	r <i>New Object</i> re.com/electro	<i>ive, inc</i> ., ospray/index.	htlm, 2002 , 3 pages
/A.S./	69	Wilm, M., et al., "Analy <i>Chem.</i> , 1996 , <i>68</i> , 1-8	ytical properti	es of the nan	oelectrospray ion source," Anal.
EXAMINER		/Andrew Smyth/ (07/24/	/2008)	DATE CON	ISIDERED

74 | 4,908,116

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81

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4,994,165

4,995,231

5,073,713

5,158,704

5,175,996

5,192,865

5,238,671

5,245,185

5,245,186

5,266,205

/Andrew Smyth/ (07/24/2008)

Sheet 8 of 15

For	m PT	O-1449 Modi	fied	Docket No. NIHA-0194/ E-307-2002/0-US-03 Application No. 10/529,967			
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		rtment of Commo d Trademark Offi		Filing Date September 15, 2005	eptember 15, 2005 Not Yet Assigned onfirmation No.		
				Confirmation No. Not Yet Assigned			
		1	U. S. PATENT	Γ DOCUMENTS	•		
Examiner Initial		Document No.	Date	Name		Class	Subclass
/A.S./	70	RE. 34,757	10/18/94	Smith, et al.		204	299 R
8	71	RE. 35,102	11/28/95	Zare, et al.	-	204	180.1
	72	RE 36,892	10/03/00	Apffel, Jr., et al.		250	288
2000	73	4,708,782	11/24/87	Andresen, et al.		204	299 R
	1					·	

Zare, et al.

Lee, et al.

Smith, et al.

Smith, et al.

Fulton, et al.

Matson, et al.

Busch, et al.

Chait, et al.

Fulton, et al.

DATE CONSIDERED

Smith

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03/13/90

02/19/91

02/26/91

12/17/91

10/27/92

01/05/93

03/09/93

08/24/93

09/14/93

09/14/93

11/30/93

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		rtment of Commerce d Trademark Office	;	Filing Date September 15, 2005	Group Not Yet Assign	ned	
				Confirmation No. Not Yet Assigned			
		U. S	S. PATENT	DOCUMENTS			
Examiner Initial		Document No.	Date	Name	Class	Subclass	
/A.S./	85	5,267,584	12/07/93	Smith	137	13	
/ / 	86	5,423,964	06/13/95	Smith, et al.	204	180.1	
9000000	87	5,439,578	08/08/95	Dovichi, et al.	204	299 R	
0000000000	88	5,495,108	02/27/96	Apffel, Jr., et al.	250	288	
000000000000000000000000000000000000000	89	5,504,329	04/02/96	Mann, et al.	250	288	
	90	5,505,832	04/09/96	Laukien, et al.	204	452	
2000	91	5,523,566	06/04/96	Fuerstenau, et al.	250	282	
39790000000	92	5,545,304	08/13/96	Smith, et al.	204	603	
осососран	93	5,571,398	11/05/96	Karger, et al.	204	603	
000000000000000000000000000000000000000	94	5,580,434	12/03/96	Robotti, et al.	204	451	
0000	95	5,587,582	12/24/96	Henion, et al.	250	288	
80000000000000000000000000000000000000	96	5,750,988	05/12/98	Apffel, et al.	250	288	
000000000000000000000000000000000000000	97	5,788,166	08/04/98	Valaskovic, et al.	239	708	
	98	5,834,772	11/10/98	Baumgardner, et al.	250	288	
V	99	5,840,388	11/24/98	Karger, et al.	428	26.91	
	100	5,856,671	01/05/99	Henion, et al.	250	288	
	101	5,868,322	02/09/99	Loucks, Jr., et al.	239	418	
/A.S./	102	5,877,495	03/02/99	Takada, et al.	250	288	

/Andrew Smyth/ (07/24/2008)

EXAMINER

DATE CONSIDERED

Sheet 10 of 15

Form PTO-1449 Modified	Docket No. NIHA-0194/ E-307-2002/0-US-03	Application No. 10/529,967
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)	Applicant George Janini, et al.	٠
U.S. Department of Commerce Patent and Trademark Office	Filing Date September 15, 2005	Group Not Yet Assigned
	Confirmation No. Not Yet Assigned	

U. S. PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Name	Class	Subclass
/A.S./	103	5,879,949	03/09/99	Cole, et al.	436	173
355000	104	5,898,175	04/27/99	Hirabayashi, et al.	250	288
000000000000000000000000000000000000000	105.	5,954,959	09/21/99	Smith, et al.	210	321.78
	106	5,975,426	11/02/99	Myers	239	3
500000000000000000000000000000000000000	107	5,993,633	11/30/99	Smith, et al.	204	601
200000000	108	5,997,746	12/07/99	Valaskovic	210	656
0,000	109	6,054,709	04/25/00	Douglas, et al.	250	288
	110	6,068,749	05/30/00	Karger, et al.	204	452
	111	6,107,628	08/22/00	Smith, et al.	250	292
000000000000000000000000000000000000000	112	6,110,343	08/29/00	Ramsey, et al.	204	601
0000	113	6,114,693	09/05/00	Hirabayashi, et al.	250	288
XVIII DOGO	114	6,147,347	11/14/00	Hirabayashi, et al.	250	288
	115	6,187,190 B1	02/13/01	Smith, et al.	210	321.78
200000000	116	6,188,065 B1	02/13/01	Takada, et al.	250	288
	117	6,190,559 B1	02/20/01	Valaskovic	210	656
V	118	6,207,954 B1	03/27/01	Andrien, Jr., et al.	250	288
***************************************	119	6,231,737 B1	05/15/01	Ramsey, et al.	204	451
/A.S./	120	6,297,499 B1	10/02/01	Fenn	250	288
EXAMINE!	R	/Andrew Smyth/	(07/24/2008)	DATE CONSIDERED		

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Form PTO-1449 Modified	Docket No. NIHA-0194/ E-307-2002/0-US-03 Application No. 10/529,967		
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)	Applicant George Janini, et al.		
U.S. Department of Commerce Patent and Trademark Office	Filing Date September 15, 2005	Group Not Yet Assigned	
	Confirmation No. Not Yet Assigned		

U. S. PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Name	Class	Subclass
/A.S./	121	6,333,088 B1	12/25/01	Le Febre, et al.	428	36.91
000000000000000000000000000000000000000	122	6,335,525 B1	01/01/02	Takada, et al.	250	288
000000000000000000000000000000000000000	123	6,372,353 B2	04/16/02	Karger, et al.	428	447
0000000000	124	6,379,971 B1	04/30/02	Schneider, et al.	436	89
000000000000000000000000000000000000000	125	6,384,411 B1	05/07/02	Hirabayashi, et al.	250	288
	126	6,596,988 B2	07/22/03	Corso, et al.	250	288
***************************************	127	2001/0000752 A1	05/03/01	Feranzen	435	91.2
000000000000000000000000000000000000000	128	2001/0010338 A1	08/02/01	Ganan-Calvo	239	8
00000000	129	2001/0042793 A1	11/22/01	Ganan-Calvo	239	8
00000000	130	2002/0003209 A1	01/10/02	Wood, et al.	250	282
200000000000000000000000000000000000000	131	2002/0011560 A1	01/31/02	Sheehan, et al.	250	283
	132	2002/0013298 A1	01/31/02	Hunter	514	113
	133	2002/0017487 A1	02/14/02	Huang	210	635
	134	2002/0019023 A1	02/14/02	Dasseux, et al.	435	40
00000000	135	2002/0019518 A1	02/14/02	Hansen	530	388.4
V	136	2002/0037532 A1	03/28/02	Regneier, et al.	435	7.1
	137	2002/0037919 A1	03/28/02	Hunter	514	449
/A.S./	138	2002/0052005 A1	05/02/02	Hansen	435	7.1
EXAMINER		/Andrew Smyth/ (07/2	4/2008)	DATE CONSIDERED		

EXAMINER

/Andrew Smyth/ (07/24/2008)

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Form PTO-1449 Modified				Docket No. NIHA-0194/ E-307-2002/0-US-03 Application No. 10/529,967			0.
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)			Applicant George Janini, et al.				
U.S. Department of Commerce Patent and Trademark Office			Filing Date September 15, 2005	Group Not Yet Assigned			
			Confirmation No. Not Yet Assigned				
		U. S	S. PATEN	T DOCUMENTS			
Examiner Initial		Document No.	Date	Name		Class	Subclass
/A.S./	139	2002/0052404 A1	05/02/02	Hunter, et al.		514	449
	140	2002/0055184 A1	05/09/02	Naylor, et al.	,	436	514
33000	141	2002/0060288 A1	05/23/02	Hughey, et al.		250	281
000000000	142	2002/0066857 A1	06/06/02	Hughey, et al.		250	281
0000000000	143	2002/0072126 A1	06/13/02	Chervet, et al.		436	161
000000000000000000000000000000000000000	144	2002/0100714 A1	08/01/02	Staats		210	85
200000000000000000000000000000000000000	145	2002/0110919 A1	08/15/02	Wienkers, et al.		436	56
000000	146	2002/0119202 A1	08/29/02	Hunter, et al.		424	501
000000000	147	2002/0119505 A1	08/29/02	Goshe, et al.		435	7.92
	148	2002/0121444 A1	09/05/02	Lee, et al.		204	613
V	149	2002/0121598 A1	09/05/02	Park	-	250	288
/A.S./	150	2003/0089601A1	05/15/03	Ding, et al.		204	298.2
		-					
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DATE CONSIDERED

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Docket No. Application No. Form PTO-1449 Modified NIHA-0194/ 10/529,967 E-307-2002/0-US-03 List of Patent and Publications **Applicant** Cited by Applicant (Use several sheets if necessary) George Janini, et al. U.S. Department of Commerce Filing Date Group Patent and Trademark Office September 15, 2005 Not Yet Assigned Confirmation No. Not Yet Assigned

FOREIGN PATENT DOCUMENTS

Examiner					Translation	
Initial		Document No.	Date	Country	YES	NO
/A.S./	151	WO 96/33405 A1	10/24/96	PCT		
9000	152	WO 98/35226 A1	08/13/98	PCT		
gaggeroon688	153	WO 01/61338 A1	08/23/01	PCT		
,	154	WO 01/91158 A2	11/29/02	PCT		
V	155	WO 01/99158 A2	11/29/01	PCT		122
/A.S./	156	WO 2004/038752 A3	05/06/04	PCT		-
· -						
						
			<u> </u>		-	
	_					
EXAMINER	<u> </u>	/Andrew Smyth/ (07/	24/2009)	DATE CONSIDER	ED	

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Form PTO-1449 Modified List of Patent and Publications Cited by Applicant (Use several sheets if necessary)			Docket No. NIHA-0194/ E-307-2002/0-US-03	Application No. 10/529,967			
			Applicant George Janini, et al.				
		nent of Commerce Frademark Office	Filing Date September 15, 2005	Group Not Yet Assigned			
			Confirmation No. Not Yet Assigned				
•	отнен	R DOCUMENTS (Inclu	ding Author, Title, Date,	Pertinent Pages, Etc.)			
/A.S./	157			w.newobjective.com, downloaded			
20000000000	158	from Internet October 2002, 2 pages Ashcroft, A.E., "An introduction to mass spectrometry," Mass Spectrometry, http://www.astbury.leeds.ac.uk/Facil/MStut/mstutorial.htm , downloaded from					
***************************************	159	Internet October 14, 2002, 1-25 "Capillary electrophoresis theory and background," <i>CE Theory</i> , http://www.ceandcec.com/cetheory.htm , downloaded from Internet September 16, 2002, 21 pages					
	160	"CE-MS," www.agilent.com, downloaded from Internet September 16, 2002, 3 pages					
000000000000000000000000000000000000000	161	"Electrospray tips from new objective," Scientific Instrument Services, Inc., http://www.sisweb.com/lc/new-objective/picofrit.htm , downloaded from the Internet April 4, 2003, 2 pages					
000000000000000000000000000000000000000	162	"Electrospray ion trap mass spectrometry; Introduction," http://www.colby.edu/chemistry/instruments/ElectrosprayIntro.pdf , last modified on Internet September 11, 2001, 5 pages					
N2000000000000000000000000000000000000	163	"Flexible fused silica capillary tubing," http://www.polymicro.com/images/tubepage.jpg , downloaded from the Internet September 14, 2002, 1 page					
8,0000000000000000000000000000000000000	164	"Life sciences/chemical analysis," <i>Agilent Technologies</i> , http://www.chem.agilent.com/scripts/peakprint.asp?Page=1169 , downloaded from the Internet October 14, 2005 , 1 page					
	165						
V	166						
/A.S./	167						
EXAMINE	R //	Andrew Smyth/ (07/24/2008					

Sheet 15 of 15

of Patent Cited be several several several	t and Publications by Applicant heets if necessary) hent of Commerce	Docket No. NIHA-0194/ E-307-2002/0-US-03 Applicant George Janini, et al. Filing Date September 15, 2005 Confirmation No. Not Yet Assigned	Application No. 10/529,967 Group Not Yet Assigned			
ОТНЕ	R DOCUMENTS (Include	ling Author, Title, Date,	Pertinent Pages, Etc.)			
168	for femtomole sensitivit	y peptide analysis," New o				
169	"Nanospray on the Thermo Finnigan LCQ," <i>ThermoFinnigan</i> , http://www.thermo.com/eThermo/CDA/Applications/Application_Detail/1,1210,PR EVIEW-10125-113,00.html, downloaded from the Internet September 14, 2002, 2 pages					
170	Schmidt, A., et al., "Effect of flow rates on analyte ion signals in nano-ESI MS," Institute for Pharmaceutical Chem., Germany, no date available, http://www.iachem.de/MPL372.pdf, downloaded from the Internet 2002, 2 pages					
171	"Technical Note PF-3; UNanoflow™ stage" New	Jsing PicoFrit columns wi Objective, Inc., www.nev	th the micromass Z-spray TM			
R	(Androus Smith) (07/04/00	DATE CON	ISINEDEN			
	of Patent Cited between Several State of Patent Several Several State of Patent Several Several State of Patent Several Severa	168 Nanobore gradient LC/N for femtomole sensitivit downloaded from the In 169 "Nanospray on the There http://www.thermo.com. EVIEW-10125-113,00.htm. pages 170 Schmidt, A., et al., "Effer Institute for Pharmaceur http://www.iachem.de/N 171 "Technical Note PF-3; UNanoflowTM stage" New the Internet 2002, 2 page	n PTO-1449 Modified of Patent and Publications Cited by Applicant several sheets if necessary) Department of Commerce int and Trademark Office Tiling Date September 15, 2005 Confirmation No. Not Yet Assigned OTHER DOCUMENTS (Including Author, Title, Date, 168 Nanobore gradient LC/MS and MS/MS using POI for femtomole sensitivity peptide analysis," New of downloaded from the Internet 2002, 2 pages 169 "Nanospray on the Thermo Finnigan LCQ," There http://www.thermo.com/eThermo/CDA/Applicati EVIEW-10125-113,00.html, downloaded from the pages 170 Schmidt, A., et al., "Effect of flow rates on analyt Institute for Pharmaceutical Chem., Germany, no http://www.iachem.de/MPL372.pdf, downloaded 171 "Technical Note PF-3; Using PicoFrit columns wi Nanoflow™ stage" New Objective, Inc., www.ney the Internet 2002, 2 pages			